UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,286	03/04/2004	Colin N.B. Cook	2540-0707	3146

42624   7590   06/27/2007
DAVIDSON BERQUIST JACKSON & GOWDEY LLP
4300 WILSON BLVD., 7TH FLOOR
ARLINGTON, VA 22203

EXAMINER
DISTEFANO, GREGORY A

ART UNIT	PAPER NUMBER
2176	

MAIL DATE	DELIVERY MODE
06/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/792,286	COOK ET AL.
Office Action Summary	Examiner	Art Unit	
	Gregory A. DiStefano	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS·SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF T.HIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 April 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☒ Claim(s) *11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>03 April 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is in response to the Application filed 4/03/2003.

2.   Claims 1-11 have been presented for examination.

Specification

3.   The disclosure is objected to because of the following informalities:

on pg 2, paragraph [006] the statement "existing local are network" is assumed to

mean "existing local area network";

on pg 6, paragraph [0019] the statement "VPC 208 captures the hardware

outputs of the host and encodes them for transmission to the VPS." This statement

does not translate onto the drawing of Fig. 2 as host 202 is the only "host" shown and is

not directly connected to VPC 208. The examiner translates this to mean the VPC 208

captures output from a totally separate host, which is not shown in the drawing.

Appropriate correction is required.

Claim Objections

4.   Claim 11 is objected to because of the following informalities: Claim 11 is

dependent on Claim 6 which does not contain the limitation of "the VPS" as recited in

Claim 11. The examiner interprets the intended dependency of Claim 11 to be Claim 9

and is treated as such for purposes of examination.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-6 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by

US Patent Application Publication Number 2002/0038334 A1, Schneider et al.,

hereinafter Schneider.

7.   As per Claim 1, Schneider teaches the following:

utilizing universal serial bus (USB) protocol to provide movement of a mouse

cursor on a host computer to an absolute position, (pg 3, paragraph [0031]), i.e. the

keyboard and mouse are merged into a single interface (e.g., USB or Macintosh-style),

(pg 9, paragraph [0087]), i.e. the controlling computer 12 generates a pseudo-cursor

(e.g., a set of cross-hairs)that indicates where the digitized cursor should be. The

examiner interprets that the "pseudo-cursor" is generated at the current position of the

hosts mouse cursor and that this location is an "absolute position";

synchronizing the position of a logical mouse and the position of an actual mouse

using the absolute position information, (pg 9, paragraph [0087]), i.e. by sending to the

target computer a series of mouse commands, it is possible to drive the cursor to the

upper left hand-corner (the 0,0 corner), no matter where the cursor was prior to the

series of commands. The original cursor is then forced back down to be aligned with

the cross-hairs.

8.   Regarding Claim 2, Schneider teaches the method of Claim 1 as described

above. Schneider further teaches:

a virtual presence client (VPC) (i.e. analyzing digitizer control application)

calculates said logical mouse position, (pg 9, paragraph [0087]), i.e. the digitizer control

application 220(or the analyzing digitizer control application 240) sets the cursor of the

target computer to a known location.

9.   Regarding Claim 3, Schneider teaches the method of Claim 1 as described

above. Schneider further teaches:

the operating system of the logical mouse is tested to determine if it supports(i.e.

basic system testing) the use of different human interface descriptors(HIDs), (pg 7,

paragraph [0072]), i.e. that microprocessor performs: (1) basic system testing (e.g.,

code checking, FPGA checking, and RAM testing), (2) transferring mouse and keyboard

signals.

10.   Regarding Claim 4, Schneider teaches the method of Claim 3 as described

above. Schneider further teaches:

the HIDs are USB compatible, (pg 3, paragraph [0031]), i.e. the keyboard and

mouse are merged into a single interface (e.g., USB or Macintosh-style). The examiner interprets the term "HID" to mean the user clicking on a mouse button where said mouse uses a USB interface.

11. As per Claim 5, Schneider teaches the following:

generating a signal utilizing human interface descriptors (HIDs) at a remote computer, (pg 2, paragraph [0025]), i.e. in general, the system of the present invention transmits a GDI representation of digitized video signals as well as mouse and keyboard signals over a communications link;

the HIDs including a plurality of user-operated devices which may support moving a pointer at a local computer to an absolute position in order to synchronize a local mouse with a remote mouse, (pg 9, paragraph [0087]), i.e. by sending to the target computer a series of mouse commands, it is possible to drive the cursor to the upper left hand-corner (the 0,0 corner), no matter where the cursor was prior to the series of commands. The original cursor is then forced back down to be aligned with the cross-hairs.

12. Regarding Claim 6, Schneider teaches the method of Claim 5 as described above. Schneider further teaches:

a PC tablet(i.e. FGPA) is used to provide the HIDs, (pg 2, paragraph [0025]), i.e.

the present invention transmits a GDI representation of digitized video signals as well as

mouse and keyboard signals. The examiner interprets the term PC tablet to be a

graphical device interface the user may alter using a HID(i.e. mouse or keyboard).

13.   As per Claim 9, Schneider teaches the following:

A virtual presence server (VPS)(Fig 1A, 12), (pg 9, paragraph [0087]), i.e. the

controlling computer 12 generates a pseudo-cursor;

A virtual presence client (VPC)(Fig 3b, 220) communicating with the host, said

VPC receiving absolute mouse coordinates without operator intervention, (pg 9,

paragraph [0088]), i.e. as the mouse commands are received by the digitizer control

application 220 (or the analyzing digitizer control application 240), they are processed

and passed on to the target device (which updates its local cursor).

14.   Regarding Claim 10, Schneider teaches the architecture of Claim 9 as described

above. Schneider further teaches:

one or more human interface descriptors (HIDs) are used in conjunction with a

universal serial bus (USB) interface to provide said absolute mouse coordinates(pg 2,

paragraph [0025]), i.e. in general, the system of the present invention transmits a GDI

representation of digitized video signals as well as mouse and keyboard signals over a

communications link, (pg 3, paragraph [0031]), i.e. the keyboard and mouse are merged

into a single interface (e.g., USB or Macintosh-style).

15.   Regarding Claim 11, Schneider teaches the architecture of Claim 9 as described

above. Schneider further teaches:

the VPS is a PCI card(i.e. PCI FPGA) installed in a PCI slot of the host

computer, (pg 2, paragraph [0026]), i.e. the motherboard 104 includes a CPU 106(e.g.,

Intel 80x86, Motorola·680x0, or PowerPC), memory 108 (e.g., DRAM, ROM, EPROM,

EEPROM, SRAM, SDRAM, and Flash RAM), and other optional special purpose logic

devices (e.g., ASICs) or configurable logic devices (e.g. GAL and reprogrammable

FPGA), (pg 5, paragraph [0054]), i.e. the output is then provided to the Video DSP and

PCI FPGAs in order to capture video at the required pixel clock rate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schneider in view of US Patent Application Publication 2002/0129353 A1, Williams et

al., hereinafter Williams.

16.   As per Claim 7, Schneider teaches the following:

initializing the USB channel on the host computer with a compatible HID, (pg 2,

paragraph [0027]), i.e. stored on any one or on a combination of computer readable

media, the present invention includes software for controlling both the hardware of the

computer 12 and for enabling the computer 12 to interact with a human user. Such

software may include, but is not limited to, device drivers;

using such HID over the USB channel to synchronize a remote and local mouse

at an absolute position, (pg 9, paragraph [0087]), i.e. by sending to the target computer

a series of mouse commands, it is possible to drive the cursor to the upper left hand-

corner (the 0,0 corner), no matter where the cursor was prior to the series of

commands. The original cursor is then forced back down to be aligned with the cross-

hairs.

Schneider does not explicitly teach a method for testing and determining

operating systems as described in claim 7. However the method of identifying operating

systems and writing device code to accomplish such was well known in the art as taught

by Williams. It would have been prima facie obvious to one of ordinary skill in the art at

the time the invention was made to modify the operating system determination method

of Schneider with the determination method as taught by Williams:

testing a series of operating systems to determine which human interface

descriptors (HIDs)(i.e. driver for peripheral) are supported by such operating systems,

(claim 12), i.e. the medium that when executed causes a computer to: retrieve a list of

potential driver sources; create a driver profile for the new peripheral comprising at least

a new peripheral model number; search sources from said list of sources for a driver

matching said driver profile; obtain said matching driver. The examiner finds it inherent

that in order for said "list of potential driver sources" to exist, there must at one point in time have been testing to determine said drivers for said list;

writing a device code on a virtual presence server (VPS) to ask which operating system (OS)(i.e. version of OS) is in use on a host computer housing the VPS, (claim 23), i.e. a computer program product as defined by claim 12 wherein causing the computer to create a driver profile further comprises causing the computer to determine a version and a language for the operating system;

determining which OS is in use on the host computer, (claim 23), i.e. determine a version and a language for the operating system;

One skilled in the art at the time the invention was made would be motivated to modify the operating system detection and compatibility of Schneider with the method taught by Williams because in the past, (pg 1, paragraph [0005]), users are required to correctly make several determinations to choose the proper drive amongst the several available to install. For example, users must accurately determine factors such as what version operating system the are using, what model peripheral they are installing, what feature sets are supported by the peripheral, and the like.

17.   As per Claim 8, Schneider teaches the following:

Synchronizing the local and remote host mouse positions using the HIDs, transparently without the need for operator intervention, (pg 9, paragraph [0087]), i.e. by sending to the target computer a series of mouse commands, it is possible to drive the cursor to the upper left hand-corner (the 0,0 corner), no matter where the cursor was

prior to the series of commands. The original cursor is then forced back down to be aligned with the cross-hairs.

Schneider does not explicitly teach a method for testing the compatibility of different HIDs with an OS as described in claim 8. However the method of testing the compatibility of different devices with different operating systems was well known in the art as taught by Williams. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the compatibility testing method of Schneider with the testing method as taught by Williams:

Trying different human interface descriptors (HIDs)(i.e. driver) to determine which HIDs, work with an operating system (OS) in use, (claim 12), i.e. the medium that when executed causes a computer to: retrieve a list of potential driver sources; create a driver profile for the new peripheral comprising at least a new peripheral model number; search sources from said list of sources for a driver matching said driver profile; obtain said matching driver.

Conclusion

18.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 5,828,372 discusses another collaboration system where a control terminal may display a pointer on a plurality of display devices as well as creating an indication mark at designated coordinates;

US 5,986,644 discusses a remote control system that can control a PC by

sending and coordinating the position of the cursor of the display of said PC;

US 6,072,463 discusses a conference communication system where multiple terminals may each display coordinated pointers on one another;

US 7,127,678 B2 discusses detecting an operating system on the host of a USB device and installing appropriate drivers associated with said operating system;

US 2003/0005177 A1 discusses a method of loading hardware devices and detecting operating systems utilizing USB;

JP 05083413 A discusses a method for transmitting and receiving pointing device information between different terminals in real time.

19.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. DiStefano whose telephone number is (571)270-1644. The examiner can normally be reached on 7:30am-5:00pm Mon.-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571)272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

G.A.D.

1/8/2007

XIAO WU
SUPERVISORY PATENT EXAMINER

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,828,372	10-1998	Kameda, Masami	715/751
*	B	US-5,986,644	11-1999	Herder et al.	345/158
*	C	US-6,072,463	06-2000	Glaser, Howard Justin	715/753
*	D	US-7,127,678	10-2006	Bhesania et al.	715/744
*	E	US-2002/0038334	03-2002	Schneider et al.	709/203
*	F	US-2002/0129353	09-2002	Williams et al.	717/175
*	G	US-2003/0005177	01-2003	Duran et al.	709/327
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	JP 05083413 A	04-1993	Japan	TANAKA, TOSHIHIDE	
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.